DETAILED ACTION

This Office Action is in response to the communication filed on 2/13/08. Applicant's arguments have been considered, but are not persuasive. Claims 1-13 are pending. This Action is FINAL, as necessitated by amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 5, 7-9 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujii et al., WO 02/080299 and/or under 35 U.S.C. 102(e) as being anticipated by Fujii et al., US 7,081,317.

Note WO 02/080299 was published in Japanese, thus, English language US 7,081,317 will be used to discuss the teachings of Fujii.

Fujii teaches a thin film fuel cell having a substrate 11, an electrolyte 13, a fuel electrode 12, an air electrode 14 and an interconnect 15 (Figure 1). Note mask layer 17 is removed to produce the finished fuel cell. The thickness of the electrolyte 13 is 0.5 to 5 μm (5:54-55). As shown in at least Figure 1 the electrolyte 13, fuel electrode 12 and air electrode 14 each contact a first surface of the substrate 11 with the electrolyte located between the fuel electrode 12 and the air electrode 14. Figure 4 shows a second thin film fuel cell formed on a second surface of a substrate. Figure 1 also shows the thickness of the electrolyte between the air electrode and the fuel electrode is thickness than the fuel electrode. Fuji teaches a first side edge of the electrolyte contacts the cathode and a second side edge of the electrolyte contacts the anode (see Figure 1).

Thus the claims are anticipated.

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Claim 10 is rejected under 35 U.S.C. 102(b)/103(a) as being anticipated by, or alternatively unpatentable over, Fujii et al., WO 02/080299 and/or under 35 U.S.C. 102(e)/103(a) as being anticipated by, or alternatively unpatentable over, Fujii et al., US 7,081,317.

Note WO 02/080299 was published in Japanese, thus, English language US 7,081,317 will be used to discuss the teachings of Fujii.

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substrate. Figure 1 also shows the thickness of the electrolyte between the air electrode and the fuel electrode is thickness than the fuel electrode. Fuji teaches a first side edge of the electrolyte contacts the cathode and a second side edge of the electrolyte contacts the anode (see Figure 1).

Thus the claim is anticipated. The claim is alternatively unpatentable because the courts have ruled that product-by-process limitations, in the absence of unexpected results, are obvious. See MPEP 2113.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii et al., WO 02/080299 and/or Fujii et al., US 7,081,317.

Note WO 02/080299 was published in Japanese, thus, English language US 7,081,317 will be used to discuss the teachings of Fujii.

Fujii teaches a thin film fuel cell having a substrate 11, an electrolyte 13, a fuel electrode 12, an air electrode 14 and an interconnect 15 (Figure 1). Note mask layer 17 is removed to produce the finished fuel cell. The thickness of the electrolyte 13 is 0.5 to 5 μm (5:54-55). As shown in at least Figure 1 the electrolyte 13, fuel electrode 12 and air electrode 14 each contact a first surface of the substrate 11 with the electrolyte located between the fuel electrode 12 and the air electrode 14. Figure 4 shows a second thin film fuel cell formed on a second surface of a substrate. Figure 1 also shows the thickness of the electrolyte between the air electrode and the fuel electrode is thickness than the fuel electrode. Fuji teaches a first side edge of the electrolyte contacts the cathode and a second side edge of the electrolyte contacts the anode (see Figure 1).

Fujii does not explicitly teach the claimed electrolyte thickness.

However, the courts have held that where the only difference between the prior art and the claimed invention was a recitation of relative dimensions (thickness) of the claimed device

(membrane) and a device having the claimed relative dimensions would not perform differently than the prior art device (membrane), the claimed device was not patentably distinct from the prior art device. See MPEP 2144.04.

Response to Arguments

A telephone interview was conducted on 6/3/08 to discuss the pending claims. Examiner stated it was appreciated that the amendment of 2/13/08 attempted to incorporate the Examiner's suggestions. However, the claims recite open language and do not exclude the "fifth side" of the electrolyte shown in the prior art (Fujii), but not in the present invention. Examiner suggests the claims be amended to require the electrolyte to have the square/cube shape shown in Figures 1-3 and to exclude the shape shown in Figures 1 and 4 of Fujii. This type of amendment would overcome the anticipation rejection in view of Fujii. Note that any amendment would be reviewed to determine if the claimed invention was obvious in view of the teachings of Fujii.

Allowable Subject Matter

Claims 2 and 3 are allowed. The claims require the height of the fuel electrode to be greater than the height of the electrolyte and the height of the air electrode to be greater than the height of the electrolyte (as measured from a first surface of the substrate). Fujii does not teach or suggest this limitation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tracy Dove/
Primary Examiner, Art Unit 1795
June 6, 2008